



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,858	01/08/2004	Rhonda L. Childress	AUS920031002US1	6042

35525 7590 04/09/2008  
IBM CORP (YA)  
C/O YEE & ASSOCIATES PC  
P.O. BOX 802333  
DALLAS, TX 75380

EXAMINER
----------

ANWARI, MACEEH

ART UNIT	PAPER NUMBER
----------	--------------

2144

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

04/09/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptonotifs@yeeiplaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/753,858	<b>Applicant(s)</b> CHLDRESS ET AL.	
	<b>Examiner</b> MACEEH ANWARI	<b>Art Unit</b> 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/04/2008</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. This action is responsive to the amendments filed on 3/05/2008. **Claims 9- 10, 12- 14, 18 & 20** were amended. No other claims have been amended, canceled, or newly presented. Accordingly, **claims 9- 21** are pending.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 9- 21** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear from the way the claims are written whether, the *periodic basis* is reference to *receiv(-ing) cache data from a set of routers* or to the *stor(-ing)* in *stor(-ing) the cache data received*. Furthermore, it is unclear whether the *clearing* of the *cache data* is occurring in the *processing unit* or *from the set of routers*. Therefore the Examiner will interpret these limitations in the broadest reasonable sense.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2144

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 9-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nelson et al.** (hereinafter **Nelson**) U.S. Publication No.: 2003/0005092 A1 in view of **Messinger**, U.S. Patent No.: 6,425,007 B1 and further in view of **Pham et al.** (hereinafter **Pham**) U.S. Publication No.: 2003/0074473 A1.

Regarding **claim 9**, **Nelson** teaches a bus system (Par. 18; reads on this limitation); a communications unit connected to the bus system (Figure 1 and Par. 9; internet connected devices); a memory connected to the bus system, wherein the memory includes a set of instructions (Figure 1 and Par. 49-50; ARP cache and databases).

**Nelson**, also teaches a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to receive cache data from a set of routers in the data processing system on a periodic basis, wherein the cache data includes an identification of the nodes sending data packets onto the network data processing system (Figure 1 and Par. 18 & Par. 8 & 49-50; ARP cache, *ARP table walk* and periodic searches and periodic collections); identify the nodes on the network data processing system using the cache data from the

set of routers (Figure 1 and Par. 18 & Par. 8 & 49-50; ARP cache, *ARP table walk* and periodic searches and periodic collections).

**Nelson** does not explicitly teach generating a display of the nodes in a graphical view comprising communications paths between the nodes with a graphical indication of network traffic volume using the cache data received on a periodic basis, wherein the graphical view includes network traffic volume and node relationships over time.

However, **Messinger** discloses generating a display of the nodes in a graphical view comprising communications paths between the nodes with a graphical indication of network traffic volume using the cache data received on a periodic basis, wherein the graphical view includes network traffic volume and node relationships over time (Figures 1-4 and Abstract and Col. 5 lines 61-66; graphically depicting network traffic).

**Nelson** and **Messinger** are analogous art because they are from the same field of endeavor of network management. At the time of the invention, it could have been obvious for one of ordinary skill in the art, having the teachings of **Nelson** and **Messinger** before him or her, to incorporate a the identification of nodes on a network data processing system using cache data from a set of routers (i.e. ARP table walk), as disclosed by **Nelson**, with a graphical display of the network traffic volume, as disclosed by **Messinger**.

The suggestion for doing so would have been where **Nelson** mentions (Par. 50, lines 14-15) that any of the discovery techniques he discussed could be used in conjunction with other discovery techniques.

Therefore, it would have been obvious to combine **Nelson** with **Messinger** to obtain the invention as specified in the instant claim.

Furthermore, **Nelson** and **Messinger** don't seem to explicitly disclose wherein *the cache data is cleared on a periodic basis from the set of routers*.

In the same field of endeavor, **Pham** discloses wherein *the cache data is cleared on a periodic basis from the set of routers* (Figures 5-6 & 11 and par. 50; dynamic data store & data modified and deleted).

It would have been obvious to one of ordinary skill in the art at the time of the present invention to modify the teachings of **Nelson** and **Messinger** with that of **Pham** to allow for a more robust and efficient system.

**Claim 10** is substantially the same as **claim 9** and is therefore rejected for the same rationale as **claim 9**.

**Claim 11:** Wherein the cache data is from a set of address resolution protocol caches located on the set of routers (Figure 1 and Par. 49-50; ARP cache, *ARP table walk* and periodic searches and periodic collections).

**Claim 12:** Further comprising: identifying means for identifying communications paths between the nodes on the network data processing system using the cache data (Par. 49-50; ARP cache, *ARP table walk* and periodic searches and periodic collections).

**Claim 13:** Further comprising: identifying means for identifying network traffic on the communication paths using the cache data received on the periodic basis from the set of routers (Par. 8 & 52; ARP cache, *ARP table walk* and periodic searches and periodic collections).

Regarding **claim 14**, **Nelson** and **Messinger** teach the invention as discussed above; further **Messinger** teaches wherein the cache data received on the periodic basis is used to validate service level agreement compliance (Abstract and Col. 6 lines 46-63; service requests).

**Claim 15:** Wherein the cache data is received through agents located on the set of routers (Par. 5 & 18 & 49-50; agents, programs, ARP cache and *ARP table walks*).

**Claim 16:** Where the agents clear the set of address resolution protocol caches each time data is sent to the data processing system (This is an inherent feature among routers, where the ARP Cache entries will eventually time-out and anew query will have to be made).

**Claim 17:** Wherein the cache data contains entries for the nodes sending data packets onto the network data processing system and wherein each entry includes at least one of a media access control address, a source Internet Protocol address, and a destination Internet Protocol address (Figure 1 and Par. 8-9 & 23; MAC address, serial number and unique identifier information).

**Claims 18-21** list all the same elements as **claims 9-17** but in computer readable medium form rather than system form. Therefore, the supporting rationale used to reject **claims 9-17** apply equally as well to **claims 18-21**.

**Examiner Note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in its entirety as potentially teaching of all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

#### ***Response to Arguments***

7. Applicant's arguments with respect to **claims 9- 21** have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MACEEH ANWARI whose telephone number is (571)272-7591. The examiner can normally be reached on Monday-Friday 7:30-5:00 PM ES.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2144

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.A.

/William C. Vaughn, Jr./  
Supervisory Patent Examiner, Art Unit 2144